Progression Points

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| **Strands and content descriptions for teaching**  ***Modes*** | **Emerging E** | **Developing D** | **Demonstrating C** | **Advancing B** | **Extending A** |
| Beginning to work towards the achievement standard | Working towards the achievement standard | Demonstrating the achievement standard | Working beyond the achievement standard | Extending with depth beyond the achievement standard |
| **Number and Algebra:**   * Fractions and decimals   [***ACMNA033***](http://www.australiancurriculum.edu.au/Elements/ACMNA033)  6 | **With explicit prompts**, they:   * **share collections** into two or four equal parts * **divide shapes** into two or four equal parts * talk about what they have done using the terms, **‘half’’ and ‘quarter’.** | **With prompts**, they:   * **divide collections and shapes** into halves, quarters and **eighths** * **attempt to explain** why the group represents a particular fraction. | They **independently**:   * divide collections and shapes into halves, quarters and eighths * **explain** why the group represents a particular fraction. | They:   * **apply their understanding** of halves, quarters and eighths in real-life situations * **explain what they have done and the fractions used.** | They:   * **solve real-life problems** involving halves, quarters and eighths, including the **equivalence of fractions** (2 quarters is the same as one half) * **explain their reasoning and the reasonableness of their answers.** |

Term 3 Maths Year 2 (one concept tracked through)

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| **Content descriptions and Elaborations to be taught** | |  | |
| **Number and Algebra** | Measurement and Geometry | | **Statistics and Probability** |
| **Fractions and decimals**   * Recognise and interpret common uses of halves, quarters and eighths of shapes and collections (ACMNA033)   **Number and place value**   * Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting (ACMNA028) * Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and ten from any starting point, then moving to other sequences (ACMNA026) * Recognise, model, represent and order numbers to at least 1000 (ACMNA027)   **Patterns and algebra**   * Describe patterns with numbers and identify missing elements (ACMNA035) | **Shape**   * Describe and draw two-dimensional shapes, with and without digital technologies (ACMMG042) * Describe the features of three-dimensional objects (ACMMG043)   **Using units of measurement**   * Tell time to the quarter-hour, using the language of 'past' and 'to' (ACMMG039) * Use a calendar to identify the date and determine the number of days in each month (ACMMG041) | |  |

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|  | |  | **Teaching and learning** | | | |  |
| Week | **Lesson Goals**  What students will need to do to be successful in their learning (Success Criteria) | **Teaching strategies and learning experiences** | | Daily Routines | Resources | **Assessment for, of and as learning**  **(Prior knowledge, formative, summative assessment)**  **Feedback/feedforward to students**  **Modification/Adjustments for learners (IEP)**  **Data Collection** | |
|  | **Fractions Lesson 1**  Representing halves and quarters of shapes.  **Students will:**  Show halves and quarters with a variety of materials.  Represent half of one shape in different ways. | **Establish learning context**   * Consider the objective of the lesson. * Review and discuss: * students’ previous experience with fractions * familiar everyday situations that involve halves and quarters.  Describe fractions as ‘equal sized parts’  * Fold regular two-dimensional shapes to represent halves and quarters (square, rectangle, circle). * Confirm fractions as ‘equal sized parts of one whole’. * Explain that: * In most everyday situations, fraction terms including half and fourth describe an approximation. * In mathematics, fraction terms imply an exact equal sized part.  Represent halves and quarters with area models  * Identify halves and quarters: * concrete models * visual models. * Name and label fractions (half, quarter). * Show different representations of the same fraction, e.g. one half of a square as:   and Compare fractions  * Compare fractional parts to describe them as halves or not halves, e.g. | |  | NA 22 & Diff sheet | Ideas for differentiation  Support  Explore the concept of fractions in familiar contexts first, e.g. cutting fruit or a sandwich. Identify and label halves and quarters.  Extension  Challenge students to compare representations of ‘half’ and ‘quarter’. Ask students to show and describe the relationship between halves and quarters.  Assessment  Can the student:  Describe fractions as being equal sized parts of a whole?  Identify halves and quarters in various shapes?  Ideas for monitoring  Observe students as they represent fractions with materials and visual models.  Consult with students as they compare fractions. | |
|  | **Fractions Lesson 2**  Representing halves and quarters of collections  **Students will:**  Split collections into halves and quarters.  Solve simple number problems involving halves and quarters. | **Establish learning context**   * Consider the objective of the lesson. * Review students’ understanding of ‘halves’ and ‘quarters’ as  equal-sized parts.  Describe fractions as ‘equal-sized shares’  * Represent sharing situations involving equal-sized shares, e.g. Share 12 blocks among two children. * Describe the situation in terms of ‘parts’ and ‘whole’. (*The whole is 12. There are two parts. Each part has 6.*)  Share collections into halves and quarters  * Share collections of objects into halves and quarters. * Confirm each share as ‘equal’ in size. * Record the result of each sharing event, e.g.    Solve simple number problems involving half and quarter  * Find different ways to represent ‘one half’ and ‘one quarter’ of the same collection. * Identify the value of fractional parts, e.g. *What is a quarter of 8?* * Compare fractions, e.g. *Which is more: one half of 8 or one quarter of 12?* | |  | NA 23 & Diff sheet | Ideas for differentiation  Support  Arrange students to work in groups. Ask them to share collections so that each student gets a fair share. Describe these shares as ‘half’.  Extension  Encourage students to generate and ask more questions about fractions.  Assessment  Can the student:  Describe fractional parts of a collection as ‘equal-sized shares’?  Show halves and quarters of a collection with materials and diagrams?  Ideas for monitoring  Monitor students’ ability to:  Observe and consult with students as they:  Share collections into fractional parts  Solve simple problems involving halves and quarters. | |
|  | **Fractions Lesson 3**  Representing eighths of shapes  **Students will:**  Show one eighth of a shape.  Describe an eighth in terms of equal sized parts. | **Establish learning context**   * Consider the objective of the lesson. * Review students’ experience in finding halves and fourths of shapes and objects.  Describe eighths  * Discuss everyday situations that involve eighths (e.g. pizza slices, sharing a chocolate bar). * Remind students that: * In most everyday situations, fraction terms including half, fourth and eighth describe an approximation. * In mathematics, fractions terms imply an exact equal-sized part. * Fold regular two-dimensional shapes to represent eighths (square, rectangle, circle). * Confirm fractions as ‘equal-sized parts of one whole’.   **Represent eighths with area models**   * Identify eighths: * concrete models * visual models. * Name and label fractions (half, quarter, eighth).   **Compare fractions**   * Shade halves, quarters and eighths on a 4 X 2 grid, e.g.      * Compare the size of each portion. * Make simple statements of comparison. | |  | NA 23 Diff. sheets | Ideas for differentiation  Support  Consolidate the idea of  equal-sized parts with materials and visual models.  Extension  Challenge students to compare representations of ‘half’, ‘quarter’ and ‘eighth’. Ask students to show and describe the relationship between:  Halves and eighths  Quarters and eighths.  Assessment  Can the student:  Represent and identify one eighth in a variety of shapes?  Describe eighths as one of eight equal-sized parts of a shape?  Ideas for monitoring  Observe students as they represent fractions with materials and as drawings.  Consult with students as they compare representations of halves, quarters and eighths.  Quarters and eighths. | |
|  | **Fractions Lesson 4**  Representing eighths of collections  **Students will:**  Split collections into eighths.  Solve simple number problems involving eighths. | **Establish learning context**   * Consider the objective of the lesson.  Describe eighths as ‘equal-sized shares’  * Represent sharing situations involving eighths, e.g. Share 24 blocks among eight children. * Describe the situation in terms of ‘parts’ and ‘whole’. (*The whole is 24. There are eight parts. Each part has 3.*)  Share collections into eighths  * Share collections of objects into eighths. * Confirm each share as ‘equal’ in size. * Record the result of each sharing event, e.g.    Solve simple number problems involving eighths  * Find different ways to represent ‘one eighth’ of the same collection. * Identify the value of fractional parts, e.g. What is an eighth of 16? * Compare fractions, e.g. Which is more: one half of 6 or one eighth of 16? | |  | NA 23 Diff sheets | Ideas for differentiation  Support  Arrange students to work in pairs. Ask them to share collections so that each student gets a fair share. Describe these shares as halves, quarters and eighths.  Extension  Encourage students to generate and ask more questions about fractions.  Assessment  Can the student:  Describe eighths of a collection as ‘equal-sized shares’?  Show eighths of a collection with materials and diagrams?  Ideas for monitoring  Observe and consult with students as they:  Share collections into fractional parts  Solve simple problems involving eighths. | |
|  | Fractions Lesson 5  Review, reinforce and extend learning | Review, reinforce and extend learning  * Use this time to revise, reinforce and extend mathematics learning. Consider the individual needs of your students.   INVESTIGATION 8 – PIZZA PARTY | |  | Tracker 22 & 23  Problem Solving 5 & 7 |  | |